THE FARMER & GARDENER;

AND LIVE-STOCK BREEDER & MANAGER.

CONDUCTED BY I. IRVINE HITCHCOCK, AND ISSUED EVERY FRIDAY FROM THE AMERICAN FARMER ESTABLISHMENT, AT $5 PER ANNUM, IN ADVANCE.

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☞ This publication is the *successor* of the late AMERICAN FARMER, (which is discontinued,) and is published at the same office, at five dollars per year, payable in advance.—☞ When this is done, 50 cents worth of any kind of seeds on hand will be delivered or sent to the order of the subscriber with his receipt.

American Farmer Establishment.

BALTIMORE: FRIDAY, MAY 16, 1834.

HORTICULTURAL SOCIETY OF MARYLAND.—The second grand exhibition of this excellent and spirited Society, was opened on Wednesday morning last, and will close this evening. In our next we shall endeavor to give our readers some idea of this magnificent display of the productions of the garden and greenhouse. Though highly creditable to the association, it is by no means equal to what it would have been, but for the late frosts which seem to have been very detrimental to early gardners vegetables.

GAMA GRASS SEED.—We have at length procured several small parcels of this seed from different gentlemen at the south. We thank them for the care they have taken to supply us, and shall be glad to procure and pay liberally for additional parcels. We propose to reserve a portion of this precious article exclusively for our subscribers, and to send to each who may desire it, a small quantity *with his receipt for five dollars paid for subscription to this paper.* Who will have a little of it? We could sell it at a high price, but prefer *to give it away with receipts* to any other mode of disposing of it.

CATTLE.—We call attention to the advertisement of Col. Powel's stock of short horned Cattle now offered for sale. We had the pleasure a few days ago of viewing these beautiful animals, and can bear witness to those fine qualities in them which are apparent at first sight, viz. their fine forms, size, and general healthy condition, and we doubt not that they possess equal excellency in other respects.

SKINLESS OATS.—Can any gentleman furnish the editor of this paper with any quantity of the seed of this valuable grain? If so he will confer an important favor, and probably pave the way for its more general introduction into this country.

GAMA GRASS SEED.

SAVANNAH, April 2d, 1834.

To the Editor of the Farmer and Gardener.

In one of your late Farmers, I noticed an offer of five dollars for one quart of the seed of the Gama Grass. Mentioning this to a friend, (one of your oldest and constant subscribers) he immediately offered to furnish the quantity, provided I would forward it to you, *not for the reward*, but with a hope of conferring a benefit; you will find a small box containing the seed, and directed to you on board the schooner Aerial, Capt. McNamara, and bound to Baltimore. It is desired to have it distributed as follows: to the gentleman who made the offer, one half; the other half as you may judge best, charging them when they collect seed, to distribute it to those that may want it on like terms, this done, my friend will be paid for his seed and I for my trouble. Wishing it a safe arrival and rapid growth,

I am respectfully yours,

WM. STARR.

We thank both of our friends for this very acceptable *deposite* for the benefit of farmers. We have handed one half of the seed to the gentleman who advertised for a quart, and the balance is at the disposal of those gentlemen who may desire to try the Gama grass. Several letters that we have recently received, concur in stating that the proper situation for the Gama grass is high dry land, which if poor must be well manured. But most persons will prefer planting the seed in their gardens, and afterwards transplanting the roots to a proper situation to spread and flourish. In that case the seed should be planted in drills 18 or 24 inches apart, and the seed 6 inches apart in the drills. The fall is the *best* season for planting it, but those who prefer to try it now, would better soften the hard shell of the seed, by soaking it in warm water for a few hours before committing it to the earth.

SCOTCH LEEK.—Capt. Matthews, of the Eastern Shore of Maryland, presented us some weeks ago, with a very fine Scotch Leek from his garden. He informs us that he has two that measure at the surface of the ground—one 9½, and the other 9 inches in circumference. They are kept, as they ought to be, for seed. Beat this who can.

Since writing the above, Capt. Matthews has brought to our office a stalk of *Tart Rhubarb*, which measures five feet four inches in height Such specimens as these of garden vegetables, are silent but eloquent witnesses of the skill and care of their worthy cultivator.

SPLENDID CAULIFLOWER.—At a meeting of the committee of management of the Maryland Horticultural Society, on Thursday the 8th inst. a Cauliflower was exhibited by Mr. Thos. Dixon, Gardener to Mrs. Donnell, of Willenbrook, which measured 2 feet 11 inches in circumference. It was remarkably compact and firm, and in the highest degree of perfection. It was considered by all the members, the finest ever exhibited in Baltimore, and several gentlemen who had been familiar with this delicious vegetable in Europe, said it would have been considered a first rate one in Holland.

We are requested to urge upon our Gardeners, and particularly upon the owners of private gardens, to send specimens of their garden vegetables to the exhibitions every Saturday morning throughout the year, at the Horticultural rooms in the Patapsco Building, opposite the Maryland Savings Institution, in North, (formerly Belvidere) street. Any thing of the vegetable kind, fruit or flowers, will be received and regularly inspected by the committee appointed for this object; and premiums awarded to the most excellent, with impartiality.

A prosecution was some time since instituted by the proprietors of the New York Daily Sentinel against a subscriber for the amount of his subscription to that paper. He pleaded that he had not ordered the paper, that it was sent him without his requesting it. The plaintiff however recovered the amount claimed; for it was decided that persons *receiving* a newspaper, without ordering it to be discontinued, are liable in every instance for the price of subscription.

AMERICAN SILK.—Power looms and other machinery for the manufacture of silk into cloth, have been introduced into Lisbon, Connecticut, and specimens of the manufactures, reeled, spun, woven and dyed in that town, have been exhibited in New York. The New York evening post says "they are among the most substantial silk fabrics we have ever seen, resembling *Gros de Naples* and preserving a beautiful lustre."

If you would have a good servant, take neither a kinsman nor a friend.

THE FARMER.

From a British Treatise "on the Science of Agriculture."

ON THE COMPOSITION OF SOILS, AND THE AGENCY OF THE EARTHS IN VEGETATION.

The surface of the earth is a variable compound, but as it respects vegetation, it is not necessary to pursue its analysis beyond the following simple divisions, viz: calx, or the calcareous; silex, or the siliceous; clay, or the argillaceous; magnesia, or the magnesion; and carbon, or the carbonaceous, or, as this is commonly called, mould.

The first four substances, are what Miller properly calls the containing part, or body, bed, or couch; and the fifth substance or mould, (which is the result of decayed animal and vegetable matter,) the part contained.

It is clearly proved that neither of the four substances, calx, clay, magnesia, or silex, in a simple state, whether separate or combined, will support a plant; and that the vegetative power of every part of earth, is determined by the quantity of mould, or animal and vegetable matter it contains.

On the earths, as forming a component part of plants, Mr. Kirwan says, "The next most important ingredient to the nourishment of plants, is earth: and of the different earths, the calcareous seems the most necessary, as it is contained in rain water; and absolutely speaking, many plants may grow without imbibing any other; M. Ruckert is persuaded that earth and water in proper portions, forms the sole nutriment of plants: but M. Giobert has clearly shown the contrary, for having mixed pure earth of alum, silex, calcareous earth, and magnesia, in various proportions, and moistened them with water, he found that no grain would grow in them; but when moistened with water from a dung-hill, corn grew in them prosperously; hence the necessity of the carbonaceous principle is apparent."

He also says, "Earths cannot enter into plants, but in a state of solution; or at least only when suspended with water in a state of division, as minute as if they really had been dissolved; that siliceous earths may be suspended in such a state of division, appears from various experiments, particularly those of Bergman, who found it thus diffused in the purest waters of Upsal; and it is equally certain that it enters copiously into vegetables: both his experiments, especially those of Macci, establish this point beyond contradiction. Argillaceous earth may also be finely diffused, so as to pass through the best of filtres; so may also calx, as appears from the quantity Margraaf found in the purest rain water."

On this part of the subject, after reciting a great number of experiments, Sir Humphry Davy observes, "The general results of this experiment, are very much opposed to the idea of the composition of the earths by plants, from any of the elements found in the atmosphere or the water."

He also says, "As the evidence on the subject now stands, it seems fair to conclude, that the different earths and saline substances, found in the organs of plants, are supplied by the soils in which they grow, and in no cases composed by new arrangements of the elements in air or water."

Here again is a great difference in the opinion of those great chemists, and on a most important point; it being admitted that earths are a necessary ingredient in the composition of plants, the question naturally arises, how, and in what proportions, and in what state, is it required by vegetables? If Sir Humphry Davy's conclusions are just, a minute examination or analysis of soils, would be requisite to form a correct judgment of its capacity; and to these lengths he has gone, and given the ingredients and proportions of several fertile soils; he has also described the method of analyzing soils; but the quantity of earth required by plants, for their various compounds, is so small, as beyond all doubt to sustain Mr. Kirwan's opinion, that it is supplied by water.

That the clearest spring water contains a quantity of earth, every person may obtain ocular demonstration of, by examining the inside of a tea kettle, in which water has been boiled for some time; the earth that will be found adhering to it, must have been deposited from water.

Thus then, as far as the earths are concerned as an article of consumption, or a necessary component in the food of plants, we may rest satisfied with the natural composition of most soils, and direct our attention only to its constitution, as it influences the absorption, retention, and distribution of water; and to its chemical powers, in regulating and determining the extent and effect of the different fermentations, combinations, and decompositions, which are requisite for the reduction and preparation of the various substances which constitute the food of plants.

If the earth was left solely to the action of the natural and chemical principles of affinity, attraction, repulsion, &c. the accumulation, or concentration, of the separate primitive substances; or of vegetable and animal matter or mould; may be too great to raise and sustain plants in a healthy and fruitful state, and such may be the case with other bodies, either simple or combined; we therefore find that nature has provided the means of averting those extremes, by reducing and blending, or mixing them, and this by the operation of insects and reptiles; as has been before observed, the earth worms seem peculiarly formed for this purpose; by their means the different substrata of clay, calx, sand, &c. are covered with a stratum compounded of the finely divided matter of its composition, forming what is called loam, or the soil; these little creatures, in making their passages or inroads, have no other means of clearing their way, than by eating the opposing matter, carrying it to the surface, and there throwing it up: hence we find, that every part of the globe that supports vegetables, is furnished or covered with an admixture of the different earths, forming the soil, of greater or less depth; and the depth of this stratum or covering, the degree of concentration, and proportion of the different substances, the nature of the substrata, as it regards the percolation and retention of water; the quantity of water supplied; and the exposure to the sun, air, and light, determine the natural produce of the general substance or soil.

From what is here said, so far from earth worms being an enemy to the farmer, they are his best friends; without them his lands would soon become impenetrable to air or water, and hence sterile and unproductive; and it is certain earth worms never wound, or prey upon the sound or living parts of seeds, roots, or plants.

As Mr. Kirwan observes, the calcerous earths seem to be the most necessary as a component part of the food of plants; from its peculiar chemical powers, it is also most necessary as an operative agent in the preparation and reduction of animal and vegetable substances, and in due proportion, it is also well adapted to render the other more tenacious substances permeable to water and air, all which have been before explained.

But that state, in which the operation of the calcareous earths have been found to be the most powerful, is lime. This singular substance is never found in a native state; but from the simplicity of its formation, and very extraordinary powers, its uses and application in the arts is most extensive, and perhaps no production, from its universal adaptation, ever obtained or deserved more attention from the chemists; but I very much doubt whether any person has yet been able to give a demonstrative definition of the principles of its various action.

The application of lime in agriculture has been justly described to have rendered sterile lands fertile, and fertile lands sterile. To speak of it, therefore, as a manure is evidently absurd, and calculated to mislead. The meaning of the term *alterative*, as it is used in medicine, is generally understood, and this appears to me to be the proper denomination for lime, when applied to the cultivation of land.

Sir Humphry Davy, has given a clear and minute detail of the component parts of the basis of lime, or lime-stone, and of the chemical principles of its formation and action; but either from a want of a more marked distinction between the effects of quick lime and slacked lime, or from some other cause, his observations, by no means accord with mine.

He says, "Lime forms a kind of insoluble soap with oily matters, and then gradually decomposes them by separating from them oxygene and carbon; it tends to diminish, likewise, the nutritive powers of albumen from the same causes, and always destroys, to a certain extent, the efficacy of animal manures, either by combining with certain of their elements, or by giving to them new arrangements. Lime should never be applied with animal manures, unless they are too rich, or for the purposes of preventing noxious effluvia; as in certain cases mentioned in the last lecture, it is injurious when mixed with any common dung, and tends to render the extractive matter insoluble."

Now, as I have before observed, I have mixed the crassamentum, or clotted part of blood, with *quick lime*, which formed a kind of *insoluble* soap, and was therefore inapplicable as food for plants; but mixed with *slacked lime* it formed a perfectly *soluble* soap, and thus rendered the albumen immediately applicable and inodorous, which left to itself could not have become so, until it had undergone the putrefactive fermentation, and have thus generated and diffused a most noxious effluvia.

He again says, "In those cases in which fermentation is useful to produce nutriment from vegetable substances, lime is always efficacious."—Now in the experiment I have just explained, it

prevented the fermentation, and I have always found this to be its peculiar property.

Parkes says, "It appears from several late experiments carefully made, that sugar is composed entirely of hydrogene, oxygen, and carbon. Mr. Cruikshank made many experiments on fermentation, and invariably found that whenever he added a fourth substance to the three which compose saccharine matter, no fermentation took place; *he tried lime*, and at another time a small quantity of potash, and the addition of either *prevented fermentation.*"

Sir Humphry Davy also says, "Quick lime in its pure state, whether in powder or dissolved in water, is injurious to plants."

I have found slacked lime, when sown or spread over plants of all kinds and stages of growth, to destroy slugs, *effectually* perform this, and without in the least injuring the plants.

As it must appear from these observations, that I cannot practically and beneficially, further apply the inferences of Sir Humphry Davy, regarding the uses of lime in agriculture, I shall not obtrude any further remarks on his ideas on the subject; but shall give an extract from the Encyclopædia Britannica, which appears to me to be more clearly, if not correctly, explanatory of the uses and effects of lime in agriculture: but even this author, seems either not to have understood the principles of the action of lime, or to have erroneously described them. He speaks of lime as a *septic*, and of its assisting and hastening putrefaction; but as before shown, lime possesses a directly opposite quality; it not only prevents, but arrests putrefaction, and is therefore in fact, *antiseptic;* and it is the action of this principle which renders soils prolific. Lime is certainly, a most powerful agent in the decomposition of animal and vegetable matter, but it is on a principle more analagous to that of fire; as in the instances before stated, it not only prevents the effects of putrefaction, which are obnoxious to vegetables, but it accelerates the formation of those compounds which are essential to fertility.

It is stated in the Encyclopædia Britannica, "Where the ground has been suffered to remain uncultivated for many ages, producing all that time succulent plants, which are easily putrefied, and trees, the leaves of which, likewise contribute to enrich the ground, by their falling off and mixing with it, the soil will in a manner be totally made up of pure vegetable earth, and be the richest when cultivated, that can be imagined. This was the case with the lands of America; they had remained uncultivated perhaps since the creation, and were endowed with an extraordinary degree of fertility; nevertheless, we are assured by one who went to America, in order to purchase lands there, that such grounds as had been long cultivated, were so much exhausted, as to be worse than the generality of ground in this country. Here then we have an example of one species of poor soil, namely, one that has been formerly very rich, but has been deprived by repeated cropping, of the greatest part of vegetable food it contained. The farmer who is in possession of such ground, would no doubt willingly restore it to its former state; the present question is, what must be done in order to obtain this end? We have mentioned several kinds of manures, which long practice has recommended as serviceable for improving ground. We shall suppose the farmer tries lime or chalk; for, as has been seen, their operations upon the soil must be precisely the same. This substance being of a *septic* nature, will act upon such parts of the soil as are not putrefied or but imperfectly so; in consequence of which, the farmer will reap a better crop than formerly. The *septic* nature of the lime is not altered by any length of time. In ploughing the ground the lime is more and more perfectly mixed with it, and gradually exerts its power on every putrescible matter it touches. As long as any matter of this kind remains, the farmer will reap good crops; but when the putrescible matter is exhausted, the ground then becomes perfectly barren, and the caustic qualities of the lime are most unjustly blamed for *burning* the ground, and reducing it to a *caput mortuum;* while it is plain, the lime has only done its office, and made the soil yield all that it was capable of yielding. When ground has been long uncultivated, producing all the time plants not succulent, but such as are very difficultly dissolved, and in a manner incapable of putrefaction, there the soil will be excessively barren, and yield very scanty crops, though cultivated with the greatest care. Of this kind are those lands covered with heath, which are found to be the most barren of any, and the most difficultly brought to yield good crops. In this case lime will be as serviceable as it was detrimental in the other; for by its *septic* qualities, it will continually reduce more and more of the soil *to a putrid state*, and thus there will be a constant succession of better and better crops, by the continual use of lime, when the quantity first laid on has exerted all its force. By a continued use of this manure, the ground will be gradually brought nearer and nearer to the nature of garden mould, and no doubt, by proper care, might be made as good as any: but it will be as great a mistake to imagine, that by the use of lime this kind of soil may be rendered perpetually fertile, as to think that the other was naturally so; for though lime enriches the soil, it does so, not by adding vegetable food to it, but by preparing what it already contains; and when all is properly prepared, it must as certainly be exhausted as in the other case.

"Here then we have examples of two kinds of poor *soils;* one of which is totally destroyed, the other greatly improved by lime; and which therefore require very different manures: lime being more proper for the last than dung, while dung being more proper to restore an exhausted soil than lime, ought only to be used for the first. Beside dunging land which has been exhausted by long cropping, it is of great service to let it lie fallow for some time; for to this it owed its original fertility, and what gave the fertility originally cannot fail to restore it in some degree.

"By attending to the distinctions between the reasons for the poverty of the two soils just now mentioned, we shall always be able to judge with certainty, in what cases lime is to be used, and when dung is proper. The mere poverty of a soil is not a criterion whereby we can judge; we must consider what hath made it poor. If it is naturally so, we may almost infallibly conclude that it will become better by being manured with lime. If it is *artificially* poor, or exhausted by continual cropping, we may conclude that lime will entirely destroy it. We apprehend that it is this natural kind of poverty only, which Mr. Anderson says in his Essays on Agriculture, may be remedied by lime; for we can scarce think that experience would direct any person to put lime upon land already exhausted. His words are, 'Calcareous matters act as powerfully upon land that is naturally poor, as upon land that is more richly impregnated with those substances that tend to produce a luxuriant vegetation. Writers on agriculture have long been in the custom of dividing manures into two classes; viz. *enriching* manures, or those that tend directly to render the soil more prolific, however sterile it may be; among the foremost of which was dung: *exciting* manures, or those that were supposed to have a tendency to render the soil more prolific, merely by acting upon those enriching manures that had been formerly in the soil, and giving them a new stimulus, so as to enable them to operate anew upon that soil which they had formerly fertilised, in which class of stimulating manures, *lime* was always allowed to hold the foremost place.

"In consequence of this theory, it would follow that lime could only be of use as a manure when applied to rich soils, and when applied to poor soils would produce hardly any, or even perhaps doubtful effects.

"I will frankly acknowledge, that I myself was so far imposed upon by the beauty of this theory, as to be hurried along with the general current of mankind, in the firm persuasion of the truth of this observation, and for many years did not sufficiently advert to those facts that were daily occurring to contradict this theory. I am now, however, firmly convinced from repeated observations, that lime and other calcareous manures produce a much greater proportional improvement upon poor soils, than such as are richer. And that lime alone upon a poor soil, will, in many cases, produce a much greater and more lasting degree of fertility than dung alone.'

"Thus far Mr. Anderson's theory is exactly conformable to the theory we have laid down, and what ought to happen according to our principles. He mentions, however, some facts which seem very strongly to militate against it, and, indeed, he himself seems to proceed upon a theory altogether different.

"Calcareous matter alone (says he) is not capable of rearing plants to perfection: mould is necessary to mix with it in certain proportions, before it can form a proper soil. It remains, however, to be determined what is the due porportion of these ingredients for forming a proper soil.

"We know that neither chalk, nor marl, nor lime, can be made to nourish plants alone; and soils are sometimes found that abound with the two first of these to a faulty degree, but the proportion of calcareous matter in these is so much larger than could ever be produced by art, where the soil is naturally destitute by these substances, that there seems to be no danger of erring on that side. Probably it would be much easier to correct the defects of those soils in which calcareous matters superabound, by driving earth upon them as manure, than is generally imagined; as a very small proportion of it sometimes affords a very

perfect soil. I shall illustrate my meaning by a few examples.

"Near Sandside, in the county of Caithness, there is a pretty extensive plain on the sea-coast, endowed with a most singular degree of fertility. In all seasons it produces a most luxuriant herbage, although it never got any manure since the creation, and has been for time immemorial subjected to the following course of crops.

"1. Bear after once ploughing, from grass, usually a good crop.

"2. Bear, after once ploughing, a better crop than the first.

"3. Bear, after once ploughing, a crop equal to the first.

"4. 5. and 6. Natural grass, as close and rich as could be imagined, might be cut if the possessor so inclined, and would yield an extraordinary crop of hay each year: after this the same course of cropping is renewed.

"The soil that admits of this singular mode of farming, appears to be a pure incoherent sand, destitute of the smallest particle of vegetable mould; but upon examination it is found to consist almost entirely of broken shells; the fine mould here bears such a small proportion to the calcareous matter, as to be scarcely perceptible, and yet it forms the most fertile soil that ever I yet met with."

The writer of this article in the Encyclopædia accounts for this fertility, by supposing that from its vicinity to the sea, it derives its prolific powers from the salt water; but by adverting to the principles I have laid down, a much more probable arrangement and combination may be suggested. In the first place, we may suppose that the mechanical texture of the soil and sub-soil is such, and so situated as not only to obtain a supply of fresh water, but to admit of, and facilitate, a constantly ascending and descending motion of such water; and that its chemical constitution is such, as to facilitate the decomposition and reduction of the roots, leaves, and stalks of the vegetables, regularly deprived of life, to a soluble state, *without the process of putrefaction*, and its consequent loss in carburetted hydrogene gas, &c.

All calcareous earths may alike possess antiseptic powers but all do not possess the capacity of operating so effectually as that here described, to supply the requisite motion, change, and quantity of water, by percolation and capillary attraction, and consequently no other can be equal in its fertility.

Sir H. Davy has given a minute analysis and description of almost every kind of soil, and explained the means of chemical investigation. But as, I think, what has been said will be sufficient to enable every person to form a pretty correct judgment of the capacity and constitution of soils, as adapted to the general purposes of husbandry; I shall not enter more particularly on this part of the subject, but must refer those who wish for such information, to his work on agricultural chemistry.

Large Lemon.—A lady in this town has a lemon which grew on a tree in her possession, weighing half a pound and measuring 9 inches in circumference. Not so bad for Jersey soil—*West Jersey Observer.*

THE GARDENER.

From Bridgeman's "Young Gardeners' Assistant."

GENERAL REMARKS. ON THE MANAGEMENT OF A KITCHEN GARDEN.

Before I commence the Catalogue, it may be necessary for me to direct the reader's attention to some important matters essential to the good management of a Kitchen Garden.

The mode of laying out the ground, is a matter of taste, and may be left to the gardener himself; the form being a thing of trifling importance in the production of useful vegetables, or whether the ground be laid out in beds of four or ten feet wide, provided it be well worked, and the garden kept neat and free from weeds.

Those who have not a garden already formed, should, however, fix on a level spot where the soil is deep; but as we have not always a choice, I would recommend the reader to that which is within his reach, and ought to be the object of every man, namely, to make the most of what he has.

To this end, he may form a border round the whole garden, from five to ten feet wide, according to the size of the piece of land; next to this border, a walk may be made from three to six feet wide; the centre part of the garden may be divided into squares, on the sides of which a border may be laid out three or four feet wide, in which the various flowering plants may be raised, unless a separate flower garden is intended. The centre beds, may be planted with all the various kinds of vegetables as well as Gooseberries, Currants, Raspberries, Strawberries, &c. The outside borders facing the East, South and West, will be useful for raising the earliest fruits and vegetables, and the North border being shady and cool, will serve for raising, and pricking out such young plants, slips and cuttings as require to be screened from the intense heat of the sun. It may be necessary to state further, though shady situations are useful for the purpose of raising Celery, Cabbage and other small plants, slips &c., in the summer season, that all standard trees should be excluded from a Kitchen Garden, for the following reasons:—First, their roots spread so widely and imbibe so much moisture from the ground that little is left for the nourishment of any plant within the range of their influence;—Secondly, when in full leaf they shade a large space and obstruct the free circulation of air, so essential to the well being of all plants;—Thirdly, the dropping of trees is particularly injurious to whatever vegetation it falls upon.

Previous to entering on the work of the garden, the gardener should lay down rules for his future government. In order to this, he should provide himself with a blank book. In this book he should first lay out a plan of his garden, allotting a place for all the different kinds of vegetables he intends to cultivate. As he proceeds in the business of planting his grounds, if he were to keep an account of every thing he does relative to his garden, he would soon obtain some knowledge of the art. This the writer has done for the last twelve years, he flatters himself that a publication of the results of his practice, will be interesting and useful to his readers.

If gardeners were to make it a rule to record the dates and particulars of their transactions relative to tillage and planting, &c., they would always know when to expect their seeds to come up, and how to regulate their crops for succession; and, when it is considered that plants of the *Brasica* or Cabbage tribe, are apt to get infected at the roots if too frequently planted in the same ground, and that a rotation of crops in general is beneficial, it will appear evident that a complete register of every thing relative to culture is essential to the well being of a garden.

One great article to be attended to is, to have a supply of good old manure and other composts ready to incorporate with the earth; also a portion of ashes, soot, tobacco dust and lime, for the purpose of sowing over seed beds in dry weather; this will tend in a great measure to destroy insects, which sometimes cut off the young plants as fast as they come up.

If the ground cannot be all manured every year as it should be, it is of primary importance that those vegetables be provided for which most need manure. A perusal of the catalogue will enable the young gardener to judge of the kinds of garden products which require most. Lest I should not have been explicit enough in this particular, I would inform him, that good manure is indispensably necessary for the production of Brocoli, Cauliflower, Cabbage, Lettuce, Spinage, Onions, Radishes and Salands in general.

In the event of a scanty supply of manure, those kinds of vegetables which are raised in hills or drills, may be provided for by disposing of the manure immediately under the seeds or plants.

The next important matter is to have ground in suitable condition to receive the seed. I would wish it to be understood, that I am an advocate for early sowing and planting, even at the risk of losing a little seed, provided the ground be fit to receive it. A light sandy soil will be benefitted if worked when moist, as such treatment will have a tendency to make it more compact; on the contrary, if a clay soil be worked when too wet, it kneads like dough, and never fails to bind when drought follows, and this not only prevents the seeds from rising, but injures the plants materially in their subsequent growth, by its becoming impervious to the moderate rains, dews, air and influence of the sun, all which are necessary to the promotion of vegetation.

Some gardeners, as well as some writers, recommend certain fixed days for sowing and planting particular kinds of seeds; I think it necessary to guard my readers from being misled. The failure of crops may be attributed to the observance of certain days for sowing. If some kinds of seeds be sown when the ground is wet and cold, they will become chilled in the ground, and seldom vegetate. If they be sown in very dry weather, the germinative parts of the seed may become injured by the burning rays of the sun, or the young plants may get devoured by insects as fast as they come up. To obviate these difficulties, I have generally allowed a week or ten days for the sowing of the seeds, intending the medium as the proper time for the vicinity of New-York. With this clearly borne in mind, the reader, who observes the difference in the degrees of heat and cold in the different parts of the country, will know how to apply these instructions accordingly.

Much depends on the manures used on particular kinds of soils. The great art of improving sandy and clayey soils, is to give the former such dressings of clay, cow dung and other kinds of manure, as will have a tendency to bind and make them more compact, and consequently more retentive of moisture; and to the latter, coats of horse dung, ashes, sand, and such other composts as may tend to separate the particles and open the pores of the clay so as to cause it to approach as near as possible to a loam.

The nearer the ground approaches to a sandy soil, the less retentive will it be of moisture; the more to a clayey, the longer will it retain it; and the finer the particles of which the clay is composed, the more tenacious will it be of water, and consequently be longer in drying, and the harder when dry; but earth of a consistence that will hold water the longest, *without becoming hard when dry*, is that of all others, the best adapted for raising the generality of plants in the greatest perfection. This last described soil is called loam, and is a medium earth, between the extremes of clay and sand.

I have in most cases recommended drills to be made at certain depths for the different kinds of seeds, and when I have stated that the drills should be two inches deep, it is intended that the seeds should be covered only one inch, which they will be when planted in these drills and covered —and so in proportion for any other depth required. This may serve as a guide to the young gardener, but circumstances alters cases; if for instance, some particular crops should fail, this would render it necessary, if the season be far advanced, to risk a further planting of seeds, even if the weather be hot and the ground dry; if these be planted a little deeper, they may escape the violent heat of the sun; and in the event of a shower, the ground would become sufficiently moist to bring them up; whereas, it sometimes happens, that seed sown after a shower do not vegetate until after the season is too far advanced to bring the crop to perfection.

The work of drilling may be performed in various ways; in some cases a plough is used, in others a small hoe, or a dibble drawn along the edge of a border or line; it is of little consequence which way the work is done, if it be well done. While I leave the gardener to make his own choice of tools, I would suggest that he be provided with two or three drilling machines; these, every handy man may make for himself; they should be in the form of a garden rake with a stout heavy back and five teeth two inches broad, and tapered so as to enter the ground and leave drills two inches deep. If one be made with the teeth eight inches apart, another twelve, and another fourteen, they will be useful in making drills for various seeds, and drills thus made, serve instead of straining a line, for every row in planting Cabbage, Lettuce, Leeks, &c., the line being strained at one edge of the bed, and the drilling machine drawn straight by the line, making five drills at once. If they are straight they may be kept so, by keeping one drill open for the outside tooth to work in until the ground be all drilled.

Gardeners practice different methods of covering up seeds, some do it with a hoe, others with a rake or harrow; some draw a portion of the earth to the side of the bed, and after sowing the seeds, return it regularly over the bed; in some particular cases a sieve is used, in others a roller. Rolling or treading in seeds is necessary in dry seasons, but it should never be done when the ground is wet.

There is nothing that protects the young crops of Turnips, Cabbages and other small plants from the depredations of the fly, so well as rolling; for when the surface is rendered completely smooth, these insects are deprived of the harbour they would otherwise have under the clods and small lumps of earth. This method will be found more effectual than soaking the seed in any preparation, or dusting the plants with any composition whatever; but as the roller must only be used previous to, or at the time of sowing the seed, and not even then if the ground be wet; it is necessary that the gardener should have a hogshead always at hand in dry weather containing infusions made of waste tobacco, lime, soot, cow dung, elder, burdock leaves, &c. A portion of these ingredients, or any other preparation that is pernicious or poisonous to insects, without injuring the plants, thrown in to a hogshead kept filled up with water, if used moderately over beds of young plants in dry weather, would, in almost every case, insure a successful crop.

As liquid however cannot be conveniently used on a large piece of land, it may be necessary, if insects are numerous, to sow tobacco dust mixed with road dust, soot, ashes, lime or the dust of charcoal, in the proportion of half a bushel per acre, every morning, until the plants are free or secure from their attacks. Turnip seed will sometimes sprout in forty eight hours, Cabbage seed ought to come up within a week after it is sown; but it sometimes happens that the whole is destroyed before a plant is seen above ground; the seedsman, in this case, is often blamed without a cause. A correspondent has communicated the result of an experiment he has tried for preventing the attacks of flies or fleas on Turnips. He says, steep your seeds in a pint of warm water for two hours, in which is infused 1 oz. of saltpetre; then dry the seed and add currier's oil sufficient to wet the whole, after which mix it with plaster of Paris so as to separate and render it fit for sowing.

In the summer season Brocoli, Cabbage, Cauliflower, &c., are particularly subject to the ravages of grubs and caterpillers; to prevent this wholly is impossible, but it is not difficult to check these troublesome visiters, this may be done, by searching for them on their first appearance and destroying them; early in the morning grubs may be collected form the earth, within two or three inches of such plants as they have attacked the night previous. The approach of caterpillers is discoverable, on the leaves of Cabbages, many of which are reduced to a thin white skin, by the minute insects which emerge from the eggs placed on them; these leaves being gathered and thrown into the fire, a whole host of enemies may be destroyed at once; whereas, if they are suffered to remain, they will increase so rapidly, that in a few days, the plantation, however extensive, may become infested; now, when once these arrive at the butterfly or moth stage of existence, they become capable of perpetuating their destructive race to an almost unlimited extent. The same remarks apply to all other insects in a torpid state. Worms, maggots, snails or slugs, may be driven away by sowing salt or lime in the Spring, in the proportion of from two to three bushels per acre, or by watering the soil occasionally with salt and water, to the quantity of about two pounds of salt to four gallons of water; or the slug kind may be easily entrapped on small beds of plants, by strewing slices of turnip on them late in the evening; the slugs or snails will readily crowd to them, and may be gathered up early in the morning (before sunrise) and destroyed.

If it be necessary at any time to sow seeds in dry weather, it is recommended to soak the seeds in water mixed with sulphur. This practice, with attentive watering, will cause the seed to vegetate speedily.

Many kinds of seeds such as Asparagus, Capsicums, Celery, Fetticus, Leeks, Lettuce, Onions, Parsnip, Parsley, Rhubarb, Salsify, Spinage, and other light seeds will not vegetate freely unless the ground be watered, or rolled; where there is no roller on the premises, the following may answer for small beds as a substitute: after the seed is sown and the ground well raked, take a board (or boards) the whole length of the bed, lay them flat on the ground, beginning at one edge of the bed, walk the whole length of the board, this will press the soil on the seed, then shift the boards till you have thus gone over the whole bed. In the absence of boards, tread in the seed with your feet, or strike on the beds with the back of your spade, or shovel.

If it should be requisite to transplant any thing when the ground is dry, the transplanting should be always done as soon as the earth is fresh turned over, and the roots of the plants should be steeped in mud made of rich compost, before they are set out.

I have in most cases recommended seeds to be sown in drills drawn from 8 to 12 inches apart, in preference to sowing broadcast, because the weeds can be more easily destroyed by the means of a small hoe; and which, properly used, greatly promotes the growth of young plants.

The following table may be useful to the gardener in showing the number of plants, or trees, that may be raised on an acre of ground, when planted at any of the undermentioned distances.

Dist. apart.	No. of plants.	Dist. apart.	No. of plants.
1 foot,	43,560	9 feet,	537
1 1-2 feet,	19,360	12 feet,	302
2 feet,	10,890	15 feet,	193
2 1-2 feet,	6,969	18 feet,	134
3 feet,	4,840	21 feet,	98
4 feet,	2,722	24 feet,	75
5 feet,	1,742	27 feet,	59
6 feet,	1,210	30 feet,	48

The preceding table may serve as a guide to such as are not expert in the arithmetic, in laying out a garden, as it shews at one view many proportions of an acre of land, in squares of different dimentions. The last line, for instance, shews, that if 48 trees be planted on an acre, each thirty feet apart, that there may be forty-eight beds of thirty feet square, and thirty beds of forty-eight feet square, formed from the same quantity of land. An allowance of about one eighth must however be made from the above calculation for walks and paths.

The table may also serve to show the gardener how to dispose of any given quantity of manure, that may be allotted for an acre of ground. If for instance, it requires three hundred and two trees to plant an acre when placed twelve feet from each other, it will require as many heaps of manure to cover the same quantity of ground, if dropped the same distance apart. It therefore follows that if one hundred loads be allowed to the acre, each load must be divided into three heaps. If seventy five loads only be allowed, every load must be divided into four heaps, and so on in proportion to the quantity allowed. But if the gardener should choose to drop his heaps, five paces, or fifteen feet apart, he may make such distributions of his loads as to have one hundred and ninety-three heaps on the acre of land; in which case by dividing each load into four heaps he will require only forty-eight loads to cover the acre, and he may decrease the quantity still more, by allowing greater distances from heap to heap, or by dividing his loads into smaller proportions so as to accommodate himself to whatever quantity of manure he may allot to cover any given quantity of ground.

THE BREEDER & MANAGER.

From the [London] Lancet, for 1831—'32.

INTRODUCTORY LECTURE ON VETERINARY MEDICINE AND SURGERY:—*By Mr. Youatt—delivered at the University of London, Wednesday, October* 5, 1831.

GENTLEMEN:—When, in the beginning of the present year, I had the honor to appear in this place as a *permitted* lecturer on veterinary medicine and surgery, I thought it a proud day for the degraded and undervalued profession to which I belonged. I felt truly grateful to the Council of this excellent institution, that they, first among the universities of England, bestowed, although perhaps but for a little while, their fostering patronage on this disregarded branch of science,—a branch of science, however, connected with many of the rational enjoyments of life—with human medicine, and the agricultural interests of the country.

I will not now speak of the deep feeling of responsibility that alternately stimulated and depressed every mental energy when I stood first and alone in such a place, the imperfectly-recognised advocate of an art to which, from habit, as well as from a conviction of its importance, I was ardently attached; but I will speak of the kind encouragement I experienced from some of the professors whom I now see before me, which I so much needed, and which they, unsolicited, and beyond what I dared to hope, bestowed; and I will speak too of the uniform attention and expression of regard which I received from a class, small indeed, but which did not disgrace even this institution; and their manifest improvement in veterinary science, creditable to themselves, and the most dearly-cherished reward they could yield their preceptor; and I will tell them that if ever their object and mine is accomplished, and the veterinary art is permitted to assert her just rank, there is one who will never forget how mainly they were instrumental in accomplishing this purpose, and the recollection of them will be associated with some of the happiest, because the most useful hours of his life.

And now, gentlemen, when I can stand before you the *appointed* lecturer on veterinary medicine and surgery—when the temporary shelter is exchanged for a permanent abode—when the art I am to teach is acknowledged to be a legitimate branch of medical and scientific education—when the claim of relationship is sanctioned by those who are the best judges of the degree of consanguinity, I can only say in behalf of my profession and myself, that we are thankful—that we will endeavor not to disgrace the alliance, and that we will become, although inferior, yet zealous, and we trust, not quite unsuccessful laborers in the cause of science and humanity.

In the prospectus of the University, veterinary surgery stands acknowledged as one of the divisions of the medical school. While I am grateful for this I must be permitted to maintain that it is an act of justice that has been too long delayed in our schools and by the public. The veterinarian had perhaps contributed to the refusal of the claim, by his lack of education, or his unprofessional bearing or conduct,—too glaring and too degrading, I must confess, in times past. Many centuries, however, have not elapsed since our elder brethren of the medical profession were not much better educated, and but little more worthy of respect. They have attained the rank in society to which they are justly entitled, and we are attempting to follow them *haud passibus æquis*, but surely, we trust, although slowly.

In the earliest period of medical history veterinary surgery was acknowledged as a branch of the medical profession. If we may believe the annals of very ancient times, Chiron, the son of Saturn, and the preceptor of Æsculapius, obtained the name of Centaur, a strange compound of man and horse, not only, as is commonly said, on account of his skill in horsemanship, but his knowledge of that animal and his diseases, for he was a teacher of medicine.

Many centuries afterwards flourished Hippocrates, "the father of medicine." He was acquainted with, and wrote concerning, if he did not practice the veterinary art. It is somewhat singular that a late author, who has published "A History of Medicine, Surgery, and Anatomy, from the Creation of the World," while he does full justice to the claims of Hippocrates, as a zealous and profound comparative anatomist, says nothing of one result of his researches into the structure of the inferior animals, a knowledge of their diseases; nor of his work which still survives, and with which that writer ought to have been acquainted, and which is pregnant with useful information, even at the present day, on every branch of the veterinary art.

The truth of the matter is, that Dr. Harrison affords a tolerably accurate although a mortifying proof of the low estimation in which veterinary science has been, and is by many held; for from the beginning to the end of his work he does not say a single word of the veterinary practitioner or veterinary practice. Well! be it so. We will endeavor to remedy this in the right way.

To pass over many writers on veterinary affairs, suffice it to mention, that, although it will probably never again occur, for it would not suit the present very proper divisions of medical practice, we have reason to believe that in Greece, and we know that in Rome, the same person frequently if not generally, practiced both human and veterinary surgery. If we recur to the history of human medicine in our own country in the earlier ages, there was much association between the surgeon and the veterinarian, if not an identification of person. The farrier, from his experience in the use of the instruments of his forge, was often called in to the aid of the human practitioner. He was the principal operator, or the consulting surgeon: or rather, he flourished for a long period when the human surgeon was scarcely heard of. He acted under the direction of the leech of the monastry, or the Lady Bountiful of the castle, or he operated too frequently on his own responsibility, and the practice of medicine was disgraced by many of his absurd and barbarous customs.

In process of time, the value of life, and the lives of those we love, and the comfort of life as connected with a state of freedom from pain, awoke the public mind to the necessity of a reform in medical practice, and, by steps which it becomes not me to trace, the human practitioner has arisen to deserved eminence.

The farrier had not the same chance: the same motive did not operate on the public mind, or on the minds of those by whom the public was influenced. Domesticated animals were then of comparatively little value. The Arab blood had not produced the unrivalled English courser. The cattle and sheep were stinted in their growth, and little celebrated either for beauty or produce. They were not in the hands of large and opulent proprietors, who might have both the spirit and the means to improve them, but, in those of the vassals, who then paid their rent in kine and not in money, in cattle, and poultry, and corn, for the consumption of the chieftain's household, and who cared little about the quality of the beasts, if they only furnished the requisite number of heads. The enslaved, and consequently ignorant peasant, neither attempted to prevent or to cure the diseases of any of his domesticated animals, nor would he employ others to do either; but if the assistance of any one was required, it was that of the wise man of the glen, who with many a strange incantation was to extract the *elf-bolt*, or to kindle the *need-fire*, or to produce the *devote smoke*, or to point out some poor persecuted wretch who was to be pricked and tortured until she reversed the fatal charm. It is not then to be wondered at, that veterinary science should have lagged behind, when her elder sister was advancing to honor and emulation.

The importance of horses and of cattle—the formation of veterinary schools—the progress of general education—the establishment of veterinary societies—and the diffusion of veterinary periodicals, have gradually brought forward a different class of men; not perhaps, even yet, taking them as a body, altogether worthy of their profession, but somewhat more deserving—more sensible of the nature and value of their profession—more anxious to improve themselves and it—more worthy of public confidence, and a little more resembling medical men. In consequence

of this, the rank in society which the veterinary practitioner occupied, has been materially raised; the English veterinary surgeon in a cavalry regiment is a commissioned officer, and in one of the Scotch, and many of the continental Universities, the veterinary lecturer occupies a professor's chair.

When, gentlemen, I had the honor to address some of you in February last, I ventured to maintain that ours was a branch of the medical science, because there was an identification of object. To preserve health and to relieve disease, are the common objects of the human surgeon and the veterinarian.

True, our patients are not possessed of the high intellectual powers of man. The support of a family, or the welfare of a kingdom, may not depend on the exertion of our skill; but there is that about our patients which will give interest and importance to our profession. I might speak of the pecuniary value of horses and cattle in their present state of improvement. At the period to which I allude, I calculated the proportion they formed of the general wealth of the state, and it was a very considerable one. I might also plead that the intellectual, aye, and even the moral qualities of many of our patients, rendered them highly deserving of our care.

"Superior as we are, they yet depend
Not more on human help than we on theirs.
Their strength, or speed, or vigilance, was given
In aid of our defects. In some are found
Such teachable and apprehensive parts,
That man's attainments in his own concerns,
Match'd with the experience of the brutes in theirs,
Are ofttimes vanquish'd, and thrown far behind.
And learn we might, if not too proud to stoop
To quadruped instructors, many a good and
Useful quality, and virtue too,
Rarely exemplified among ourselves.
Attachment never to be weaned or changed
By change of fortune: proof alike
Against unkindness, absence and neglect.
Fidelity that neither bribe nor threat
Can move or warp; and gratitude
For small and trivial favors, lasting as the life,
And glistening even in the dying eyes."

I might add to this, the consideration that we have taken from their native plains, and coerced and confined them, and too often exacted their labor with reckless cruelty, and entailed on them, by our absurd practices, or too frequent and disgraceful brutality, numerous diseases, and a premature death. I might content myself, however, with these undeniable facts, that *they are susceptible of pleasure and of pain;* that we can never be unprofitably or dishonorably employed while we are increasing the former and diminishing the latter, and that, while thus employed, we are in the strictest sense accomplishing the grand object of medical science. I will proceed to other grounds. The principle by which both are guided in the accomplishment of their noble object are the same. We have some excess of action to abate, or some defect of stimulus or of sensibility to supply, or some diseased habit to reform. We must prepare ourselves for practice precisely in the same way. We must become acquainted with the structure of the diseased part, or rather, of the animal generally. We must study deeply the natural and healthy function of every organ; we must acquire a knowledge of the connexion between change of structure and of function, or change of function and the gradual alteration of parts; we must diligently inquire into the causes of these changes, and the manner and extent to which they act, and how we shall best remove the cause, or arrest the effect, or repair the injury. We must make ourselves acquainted with the effect of medicinal agents, and as bearing on one or all of these points.

The process, then, is the same; the distinction is in the value of the patient, and human and veterinary practice differ in this particular, and in this alone. When, however, we inquire into the means by which our indications of cure are to be accomplished, we shall begin to find a variation, wider perhaps than the medical student imagined. The veterinarian is concerned with many patients, strangely different in general structure, and in the mechanism by which each function is performed. If the mechanism is different, the characters of healthy and diseased function will differ too, and our remedial measures will proportionally differ. We shall have to study this, in order that we may draw the proper inference from varieties of organization and function and disease.

[We very unexpectedly find ourselves obliged to divide this article, a practice which we are opposed to when not indispensably necessary. This Lecture will therefore be concluded in our next number.]

MISCELLANEOUS.

THE LOCUSTS AGAIN.—There is no longer any doubt that these singular insects are to make their usual periodical appearance the present season. They are already easily to be found, at the depth of six or seven inches, in gardens, and especially in orchards, under old trees. By skimming off the surface of the earth, thousands of holes are perceptible, where they have been penetrating to the surface, in order, we presume, that their way may not be obstructed on their day of general resurrection. An old gentleman of this place, informs us that his father kept particular note of their appearance in four instances; and that he himself has followed it up, and preserved observations, also, in four instances;—and that they have uniformly appeared every seventeen years; but what is singularly striking, that in all these eight instances they were found to have a general resurrection day, which has regularly occurred on the 25th May. He further says, that two or three days previously, a few make their appearance, as a reconnoitering party; but on the 25th, the whole country is deluged with one interminable swarm.—*Germantown Tel.*

A CURIOUS HORTICULTURAL ANECDOTE.—When Sir Francis Carew had rebuilt his mansion house at Beddington in Surrey, he planted the garden with choice fruit trees. There he was twice visited by Queen Elizabeth; and Sir Hugh Platt, in his Gardens of Eden, tells a curious anecdote relating to one of these visits. "I conclude," says he, "with a conceit of that delicate knight, Sir Francis Carew, who, for his better accomplishment of his royal entertainment of our late Queen Elizabeth, led her majesty to a cherry tree, whose fruit he had of purpose kept back from ripening at least one month after all cherries had taken their farewell of England. This secret he performed by straining a tent or cover of canvass, over the whole tree, and wetting it now and then with a scoop, as the heat of the weather required; and so by withholding the sunbeams from reflecting upon the berries, they grew both great, and were very long before they had gotten their perfect cherry color; and when he was assured of her Majesty's coming, he removed the tent, and a few sunny days brought them to their maturity.—*Platt's Garden of Eden.*

A novel agricultural feat was performed in Rhode Island, a few days since. It was a ploughing match on a trial of skill in the use of the plough, among fifteen competitors. The projector engaged fifteen ploughs with the teams, to plough fifteen acres of "green sward," paying each a fair compensation and offering a premium for the best performance, according to certain specified rules. A committee was appointed to superintend the performance and examine the work. The trial employed sixty head of cattle, and was completed in from six to eight hours. It must have been a pleasing and exhilerating spectacle. Of such sports we have too few in this country. The desire for excitement unfortunately takes, in some cases, a more pernicious direction. It would be a national benefit if it could be converted into such innocent and profitable channels. The revival of a taste for these rural competitions would do much to soothe the acrimony of mere party squabbles, towards which the thirst for occupation and excitement, now leads; make the use of ardent spirits a less general resort, and relieve the tedium of too much leisure by the stimulus of rational amusement.—*Balt. American.*

THE CROPS.—The Reading (Pa.) Chronicle, says: "The crops of grain in this section of the country were never more promising. The rye is mostly in head. The present cold spell, it is presumed, will not materially affect their growth, so that the prospects of the husbandman are those of an abundance."

Unprecedented.—Mr. Josiah Marchant a watchman in several of the Factories in this Village, has been engaged for *four thousand seven hundred and forty-five nights,* (*thirteen years,*) in that business, during which time he never missed a night, nor drank a drop of liquor.—*Pawtucket Chronicle.*

In the French trial by jury, unanimity is not required for a verdict;—a majority of eight to four is competent to return a verdict.

CONTENTS OF THIS NUMBER.

Horticultural Society of Maryland—Gama Grass Seed for distribution and for sale—Notice of Col. Powel's Stock of Cattle—Skinless Oats wanted—Notice of Plants from Capt. Matthews—Splendid Cauliflower—Law respecting Subscriptions—Progress of American Silk Business—A Maxim—On the Composition of Soils—Large Lemon—On the Management of a Kitchen Garden—Introductory Lecture on Veterinary Medicine and Surgery—Locusts—Method of retarding the ripening of Cherries—Ploughing Match—The Crops in Pennsylvania—Watchman—French Jury. Advertisements.

BALTIMORE PRODUCE MARKET.

☞ *These Prices are carefully corrected every* WEDNESDAY.

	PER.	FROM	TO
APPLE BRANDY,	gallon.	$0 27	$—
BEANS, white field,	bushel.	1 50	1 75
BEEF, on the hoof,	100lbs.	6 50	7 00
CORN, yellow,	bushel.	55	—
White,	"	54	—
COTTON, Virginia,	pound.	10	12
North Carolina,	"	11	12¼
Upland,	"	11	13
FEATHERS,	pound.	36	37
FLAXSEED,	bushel.	1 00	1 25
FLOUR—Best white wheat family,	barrel.	6 50	7 00
Do. do. baker's	"	6 00	6 50
Do. do. Superfine,	"	5 50	6 00
Super Howard street,	"	4 87	5 00
" " wagon price,	"	4 75	—
City Mills, extra,	"	5 12	5 25
Do.	"	4 75	4 87
Susquehanna,	"	5 00	—
Rye,	"	3 37	3 50
GRASS SEEDS, red Clover,	bushel.	3 50	4 00
Timothy (herds of the north)	"	2 50	—
Orchard,	"	3 50	—
Tall meadow Oat,	"	2 50	—
Herds, or red top,	"	1 25	—
HAY, in bulk,	ton.	15 00	17 00
Pressed,	100 lbs	70	1 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
LIME,	bushel.	30	35
OATS,	"	31	32½
OIL, linseed,	gallon.	85	— —
PEAS, red eye,	bushel.	80	—
Black eye,	"	90	1 00
Lady,	"	95	1 00
PLASTER PARIS, in the stone,	ton.	3 25	—
Ground,	barrel.	1 37	—
RAGS,	pound.	3	4
RYE,	bushel.	63	64
TOBACCO, crop, common,	100 lbs	3 50	5 00
" brown and red,	"	4 50	6 00
" fine red,	"	6 00	8 00
" wrappery, suitable for segars,	"	6 00	12 00
" yellow and red,	"	8 00	12 00
" yellow,	"	13 00	17 00
" fine yellow,	"	15 00	22 00
Seconds, as in quality,	"	4 00	5 00
" ground leaf,	"	5 00	9 00
Virginia,	"	4 00	—
Rappahannock,	"	3 00	4 00
Kentucky,	"	4 00	8 00
WHEAT, white,	bushel.	1 10	1 20
Red,	"	95	1 00
WHISKEY, 1st pf. in bbls.	gallon.	23½	24
" in hhds.	"	21½	—
" wagon price,	"	20	—
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 37	—
To Wheeling,	"	1 62	—
		washed.	*unwash*
WOOL, Prime & Saxon Fleeces,	pound.	55 *to* 65	24 *to* 28
Full Merino,	"	45 55	22 24
Three fourths Merino,	"	37 45	20 22
One half do.	"	30 37	18 20
Common & one fourth Meri.	"	25 30	18 20
Pulled,	"	28 32	16 20

Linseed Oil is in demand at our quotations.
Peas and Beans are scarce and much wanted.

IMPROVED SHORT HORNS.

MR. POWEL having left his farm, offers for private sale, his stock of improved short horned CATTLE, all of which have either been imported by him, or bred on his farm from animals selected for him in England.

Direct to WILLIAM COUCHES,
Care of John Hare Powel, Esq.
Powelton, April 17th, 1834.—May 9 9t

POINTERS.

FOR SALE, several Pointer Puppies, littered 22d Nov.; they are of the very best blood, and are all most beautifully formed, and marked, being white with liver spots.
Price $10 each. Apply to I. I. HITCHCOCK.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	$2 25	$—
BACON, hams,	pound.	10	—
Shoulders,	"	7	8
Middlings,	"	7	8
BUTTER, printed, in lbs. & half lbs.	"	25	37
Roll,	"	16	25
CIDER,	barrel.	3 50	5 00
CALVES, three to six weeks old	each.	4 00	6 00
COWS, new milch,	"	17 00	40 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	1 30	—
CHOP RYE, pure	"	1 50	—
EGGS,	dozen.	10	—
FISH, Shad, fresh,	100	10 00	11 00
" salted,	barrel.	6 00	6 50
Herrings, salted, No. 1 & 2,	"	3 50	3 62
Mackerel, No. 1, 2 & 3,	"	4 00	6 25
Cod, salted,	pound.	3½	—
LAMBS, alive,	each.	1 25	2 00
Slaughtered,	quart'r	37½	75
LARD,	pound.	8	9
POULTRY, Fowls,	dozen.	3 00	—
Chickens,	"	1 50	2 00
Ducks,	"	3 50	—
POTATOES, Irish,	bushel.	88	1 00
Sweet,	"	—	—
VEAL, fore quarters,	quart'r	50	75
Hind do.	"	75	1 00

ADVERTISEMENTS.

VINE DRESSER, FARMER & GARDENER.

A YOUNG FRENCH EMIGRANT, just arrived in this country, (having a wife with two children) is desirous of finding employment as a Vine Dresser, Gardener or Farmer, having been brought up to the business. His wife as well as himself will take part in such labors, if they can find employment. Any person wanting such assistance may apply (post paid) at "No. 8, Light-street Wharf," Baltimore, Md. May 16.

FRESH GARDEN SEEDS—NEW STOCK.

THE subscriber has now on hand a very extensive and complete assortment of GARDEN SEEDS, which he ventures to recommend to his customers and the public as *good* in every respect. He is prepared to execute orders either for dealers or families at the most reasonable rates at which *first rate articles* can be obtained.

AGENCY—He also acts as agent for the procurement of CLOVERSEED and various GRASS SEEDS whenever he has them not in store; also Agricultural IMPLEMENTS, Fruit and Ornamental TREES, SHRUBS, GRAPEVINES, &c. Orders for these must be accompanied by either cash, or directions to draw for it when the articles are shipped. He also attends to the purchase and sale of CATTLE and other domestic animals.

May 19. I. I. HITCHCOCK.

TURNING AND MILL SMITHING.

THE subscriber respectfully informs his friends and the public generally, that he has opened a Turning and Smith Shop adjoining Mr. William Miller's Foundry on the east side of Jones' Falls, opposite the Fish Market, where he is prepared to execute all kinds of Turning and Smith-work, and to fit up Rail Road work, Tobacco Presses, and Mill work generally. Also Stage and Coach Axles made or turned to order. All orders thankfully received and promptly attended to.

May 9. GEO. W. GWINN.

PLANTS.

FOR SALE at this establishment,

Early French, Early York, Early George, Flat Dutch, } CABBAGE PLANTS, at 50 cents per 100

Bullnose and Cayenne } PEPPER PLANTS at $1 pr 100

Mammoth Tomato Plants, at $1 per 100
Purple Egg do. at 25 cts. per doz.

May 9. I. IRVINE HITCHCOCK.

LUCERNE OR FRENCH CLOVER.

FEW articles of foreign introduction have ever succeeded so well as this valuable Clover. Many of the first Agriculturalists in our country have, and still continue to cultivate it with increasing success. We could give the most respectable names as references, but would merely mention as one, J. Buel, Esq. of Albany, who has given it the fairest trial and is fully satisfied of its utility and economy to the farmer; also, V. Livingston, Esq. Greensburgh, N. Y. The following is from James Byrd, Esq. Flushing, Long Island, who has cultivated it for the last ten years. He has kindly communicated to us the result of his latest experience, which should be carefully read by all agriculturists. Mr. B. is well known as one of the best farmers on Long Island, and what is not a little to his skill and reputation, he beat Cobbett hollow during the Ruta Baga war a few years since. Mr. C acknowledged that Mr. Byrd's mode of culture and returns exceeded his by all odds; he was struck with admiration when viewing his well kept field and superior quality of his Turnips—but we must proceed and in order to give the valuable Clover the widest circulation, we have reduced the price to 25 cents per lb.—was formerly 50 cents.

"FLUSHING, 2d mo. 1834.

G. T. & S.

Respected Friends:—I now hand you a particular statement how I managed my Lucerne.

1831. I this spring sowed 20 lb. of seed on my wheat about the time clover is usually sown, and harrowed it both ways with a sharp heavy iron tooth harrow. It came up well, and produced three good crops of hay the following year.

1832. Harrowed the lot three times over, and, in order to see whether it prove injurious, I had part of it done six times over. I did not find that it injured the plants, but had this good effect, that it killed nearly all the weeds and natural grass, and was very beneficial to the Lucerne.

1833. Had it well harrowed again this spring, and had three good crops of hay. I weighed part of the first crop after it was well cured, and found it produced nearly two and a half tons per acre.

The harrow ought to be made in two parts, and hung together with hooks and eyes, it being much easier to clear them from grass than when made in the usual way, and, in my opinion, are much better for all purposes: it ought to be so constructed as for the teeth not to follow each other. Be careful to pick up the stones after every harrowing, and it would be well to harrow it after every mowing. Light, dry land is best for the grass. Unless the land is very level, I think it would be best to place it in ridges twenty feet wide If sown in ridges, it must be always harrowed the long way. If any of your friends find it difficult to get harrows of the description I have given, they can procure them of *Whitehead Cornell*, Flushing.—The clover ought to be raised eight or ten inches above harrow, in order that it may run level; otherwise it will injure the plants. I had mine made with notches, to regulate the height. I am convinced that the best way to prepare land for Lucerne is to plough in *plenty* of manure in the spring, and plant it with corn, having it well ploughed and hoed, so as to be kept perfectly clean. In the fall, after taking off the corn, sow wheat, manured with ashes"

The seed now offered is what is called *Lucerne du Provence*—which simply means that it is the *Provence* seed, from Provence, the finest Lucerne county in France. We have never imported any other but this sort. Ours is from the first house in France, and growth 1833. We have never advertised it as *du Provence*, as many of our plain friends can't get their tongue around these *break jaw* names.

On hand, as usual, an extensive collection of Garden, Field, and Flower Seeds: Bird Seed of every sort.

Also, 100 bushels Orchard Grass Seed, growth of the last season, $2 50 per bushel; White and Red Clover, Timothy, Herds and Blue Grass, &c. &c.

G. THORBURN & SON, 67 Liberty st. N. Y.
may 16 2t

SUBSCRIBERS can have their volumes of the AMERICAN FARMER neatly half bound and lettered at this establishment, at 75 cents a volume. Most of the Nos. can also be had at 10 cents each, to complete files.

☞ One set of the AMERICAN FARMER complete, in 15 vols. half bound and lettered, may be had at this establishment for $60. May 9.

Printed by SANDS & NEILSON, S. E. corner of Market and Calvert-streets.